Time Management Reporting and Business Intelligence (BI) Workshop

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SCEIS Mission

The South Carolina Enterprise Information System
will **standardize and streamline
business processes**
within the government of South Carolina,
using best business practices to
**achieve cost-effective and efficient
delivery of services**.

Timely, accurate and complete information
provided through SCEIS
will empower decision-makers
to **improve the way government works** for
the citizens of South Carolina.

HR/Payroll Team Vision

"Connecting State Government's people and information through a statewide human resources/payroll system that is accurate, responsive and customer focused."

Workshop Agenda

Introductions and Project Overview

- @ Introductions

- @ Logistics

- @ HR/Payroll Project Overview

SAP Overview

- @ What is SAP?

- @ Terms, Definitions and Concepts

- @ How will SCEIS use SAP?

Objectives, Roles and Guidelines

SAP Business Intelligence Overview

- @ What is Business Intelligence

- @ BI Capabilities

Workshop Agenda, Continued

Identifying Reporting Needs

- ◉ Requirements Gathering

- ◉ Blueprint Process

- ◉ Analysis

- ◉ Solution

- ◉ Agency Local Systems

Time Management Standard Delivered Reports

- **-** Leave Balance report

- - Time Sheet – Attendance/Absence report

- - Time Wage report

- - Time cluster report

- - Work Schedule report

Wrap Up

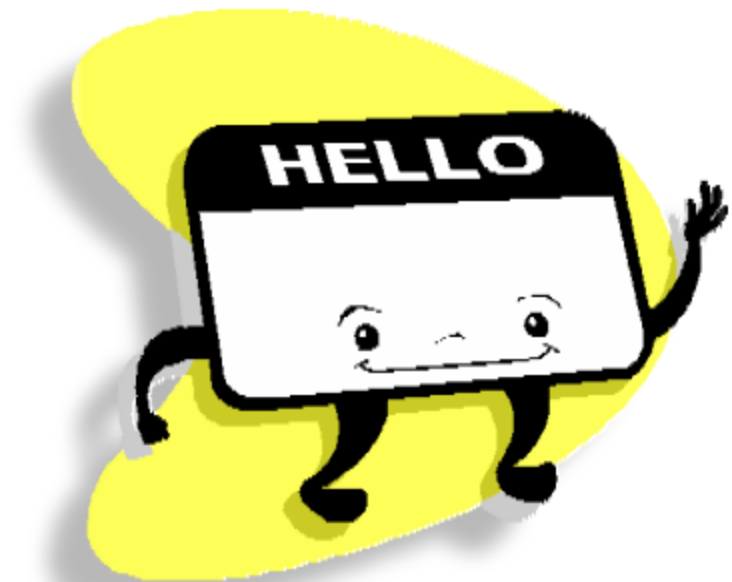- ◉ Next Steps

Introductions and Logistics

Introductions

Who we are

- Sammie Chumley

- Kumar Kittuswamy

Who are you?

- Name

- Agency

- Role with the State

Workshop Logistics

- Sign-In Sheet

- Tent Cards

- Rest Rooms

- Breaks

- Parking Lots

- Ground Rules

Workshop Guidelines

- Respect time

- Respect process
    - Stick to agenda topics
    - One subject discussed at a time

- Respect one another
    - One conversation at a time
    - Cell phones and pagers turned off
    - Listen

- Think outside of the box

- Keep the end in sight

- Work on common terminology for understanding

- Silence means agreement

- Issues will be parked and resolved outside the meeting

And have FUN!

HR/Payroll Project Overview
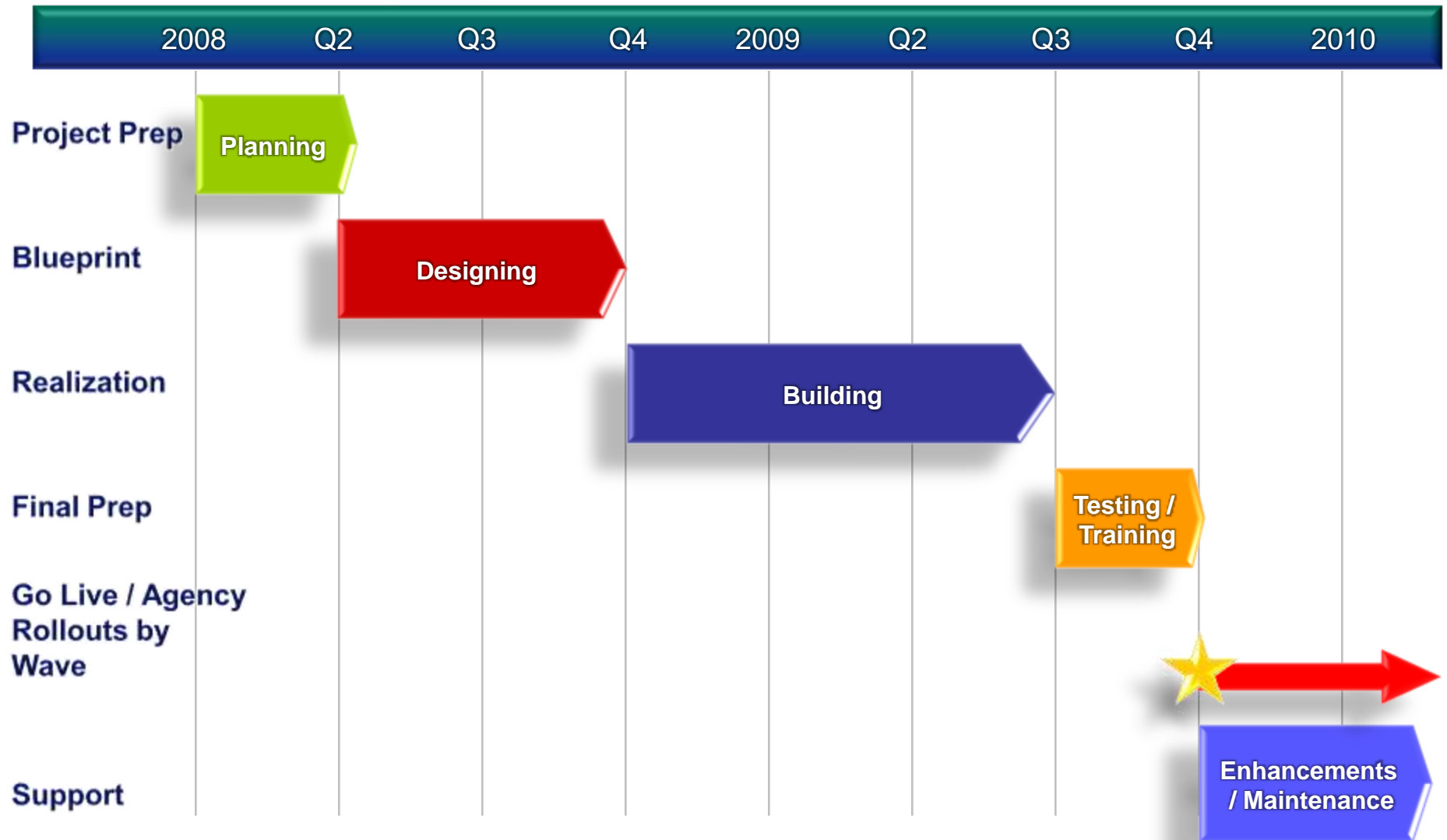
What Is This Project About?

Replacing 2 Systems...

..with 1 HR/Payroll System

HRIS

Central Payroll

SAP ECC

& Web Portal Access

Employee Self Service

Manager Self Service
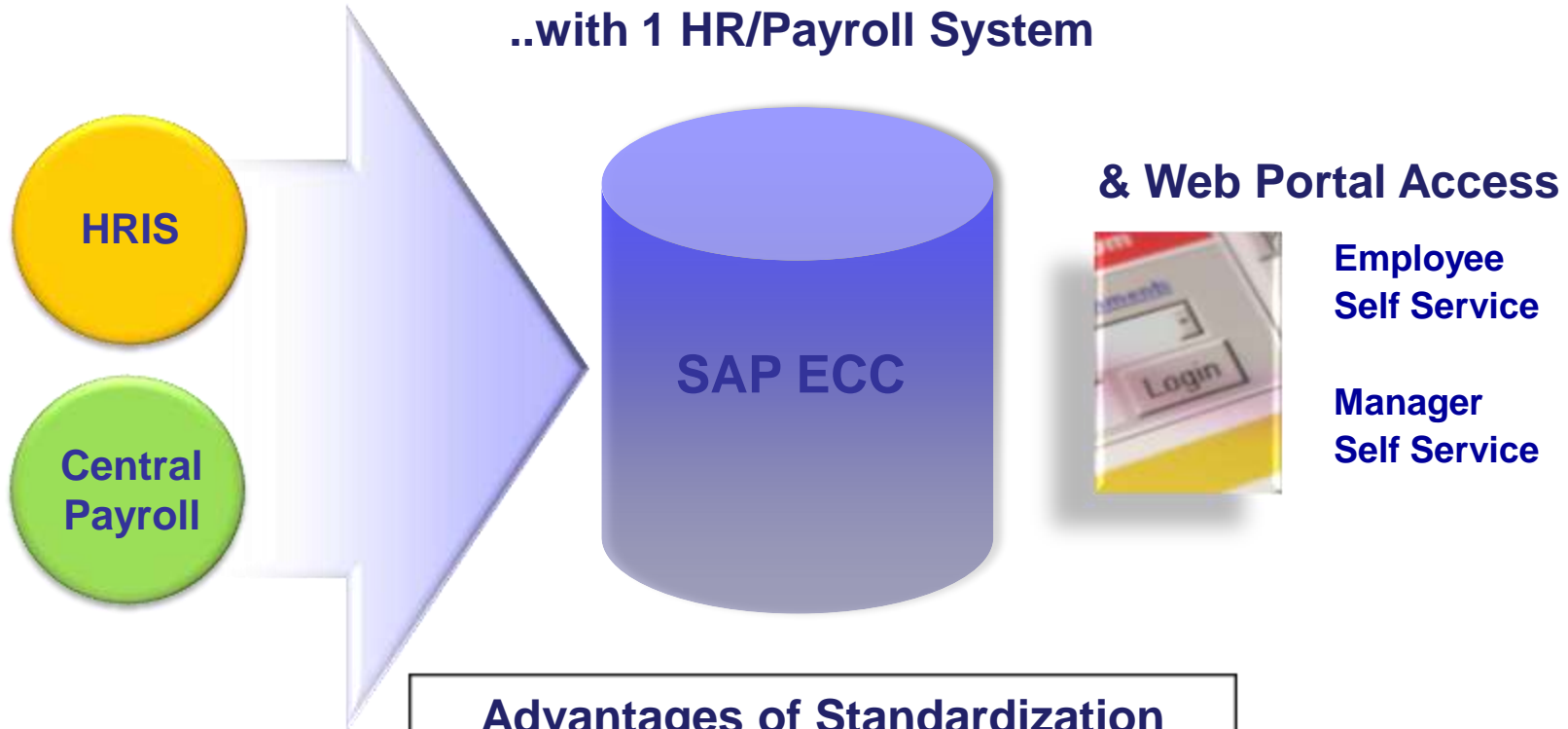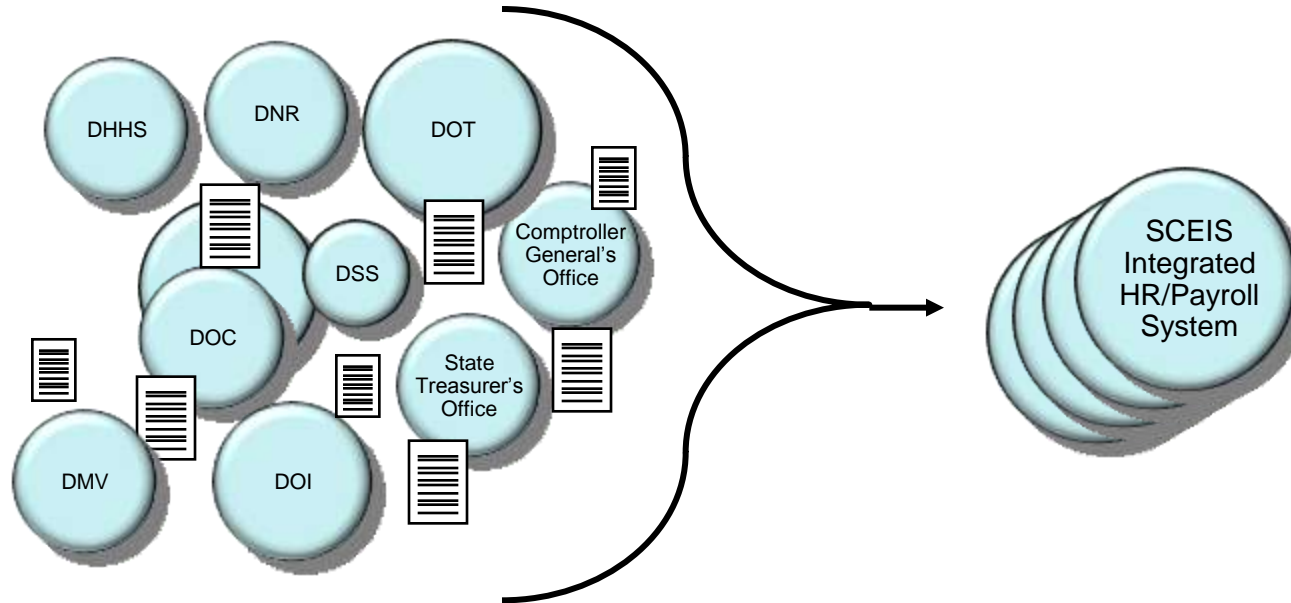
Advantages of Standardization

- ◉ Increase Productivity
- ◉ Provide Statewide Consistency for Employees
- ◉ Create a More Fair and Equitable System for All
- ◉ Provide Better Communication
- ◉ Introduce Best Business Practices

HR/Payroll Timeline

	2008	Q2	Q3	Q4	2009	Q2	Q3	Q4	2010

Project Prep — Planning

Blueprint — Designing

Realization — Building

Final Prep — Testing / Training

Go Live / Agency Rollouts by Wave

Support — Enhancements / Maintenance

* Based on calendar year

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HR Transformation

- Poor access to information
- Multiple forms and systems
- Lack of consistent Policies and Procedures
- Fragmented processes
- Many process participants
- Duplicate Information
- Data integrity and recoverability problems
- No transaction monitoring
- Overly complex service delivery

- Defined Organizational structure
- Defined roles and responsibilities
- Single database for access to information
- Integrated systems
- Defined Policies and Procedures
- Coordinated and more efficient processes
- Easy data maintenance
- Control of operations and data
- Able to monitor transaction status
- Foundation for future service delivery improvements

Organizational Risk Assessment Questions

- What are the key factors that will make the SCEIS HR/Payroll Project a Success?

- What do you see as the biggest potential risks to the SCEIS HR/Payroll Project?

- What are some of the important lessons learned from past business transformation efforts?

- Are there other initiatives that may impact the SCEIS HR/Payroll Project?

- What is the most effective way to communicate about the SCEIS HR/Payroll Project? How Often?

SAP Overview

What is SAP?

- SAP is the world's leading provider of business software, offering applications and services that enable companies of all sizes and in more than 25 industries to become best-run businesses.

  - SAP was founded in 1972 by five former IBM employees.

  - SAP stands for Systems, Applications and Products for Data Processing.

  - SAP has over 47,800 customers in 120 countries.

  - SAP software is an enterprise resource planning (ERP) system.

- An ERP system is an information system that integrates departments and functions across a business into one computer system.

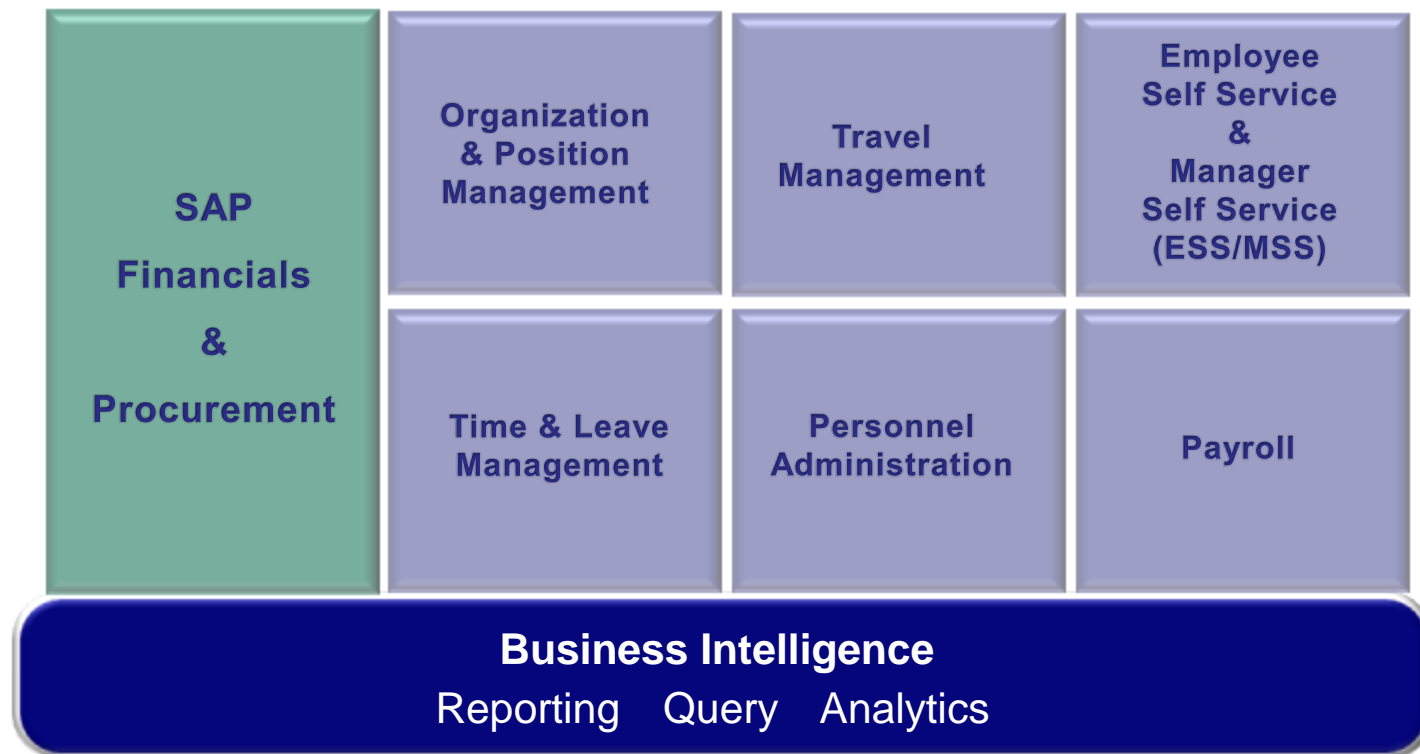# SAP Concepts

- SAP software provides modules to support multiple business functions

- Human Resource modules support activities in

  - Personnel Administration

  - Organization Management

  - Compensation Management

  - Payroll

  - Time Management

SAP ERP

Client / Server
ABAP/4

SD Sales & Distribution
MM Materials Mgmt.
PP Production Planning
QM Quality Mgmt.
PM Plant Maintenance
HR Human Resources
FI Financial Accounting
CO Controlling
AM Fixed Assets Mgmt.
PS Project System
WF Workflow
IS Industry Solutions

We Are Implementing…

SAP Financials & Procurement	Organization & Position Management	Travel Management	Employee Self Service & Manager Self Service (ESS/MSS)
	Time & Leave Management	Personnel Administration	Payroll

Business Intelligence
Reporting   Query   Analytics

…a Strong Foundation

Blueprint Workshop Objectives

Objectives of Workshop

Overall Objective:

- Identify Reporting and Analysis Requirements for Time Management

Additional Objectives:

- Gain a baseline understanding of Current Reporting Systems for HR

- Introduce Best Practices and relevant SAP concepts

- Introduce SAP Business Intelligence

- Identify and Collect current reporting requirements

- Identify future reporting needs

Your Role

What is Your Role?

Subject Matter Experts (SME)

- Are familiar with their reporting needs/ functions

- Can provide us with insights into their agency business environment

- Can ensure that the state's business requirements are appropriately addressed in the new system processes

- Can share insights into the current agency culture

- Can assist with testing the new system configurations

SAP Business Intelligence Overview
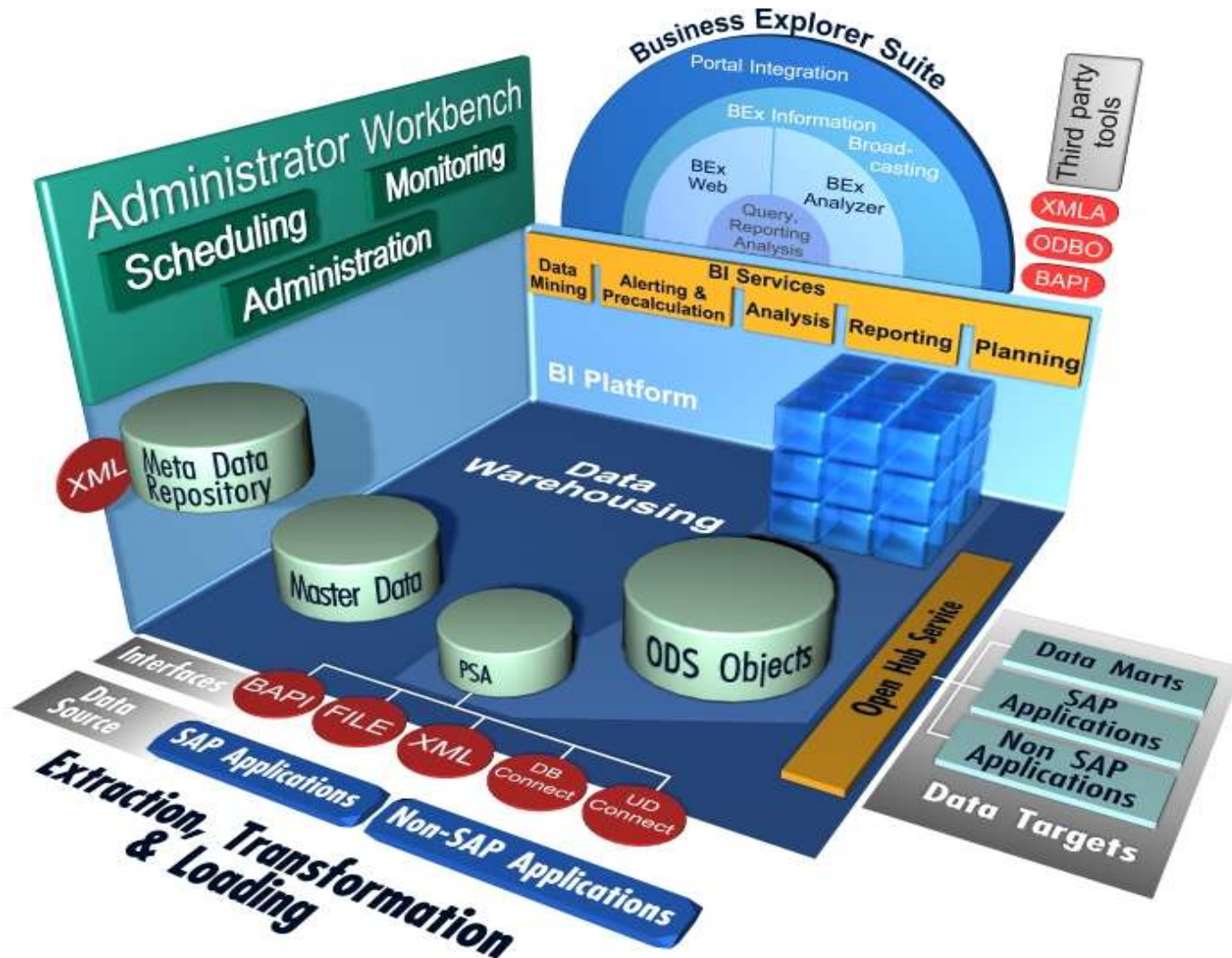
Business Intelligence Overview

What is Business Intelligence ?

SAP BI is a separate Business Intelligence solution feed from the main SAP ECC system.

BI Definition - BI describes the enterprise´s ability

- To access and explore information (structured data, often contained in a Data Warehouse or DW)

- analyze that information

- develop insights and understanding
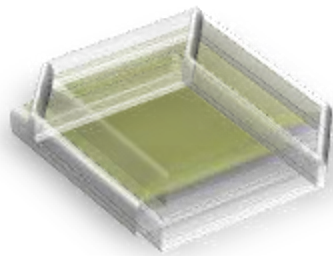
- which leads to improved and informed decision making

SAP BI gives decision makers a "multi-dimensional" view of the data stored.
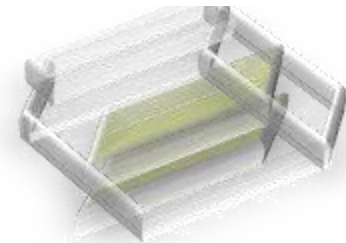
Multi Dimensional Views (Slice & Dice)

Compensation Manager
Comparison of salary by Job Category over the last 12 months

Department Manager
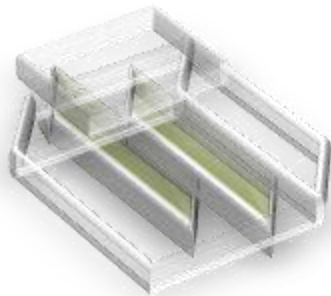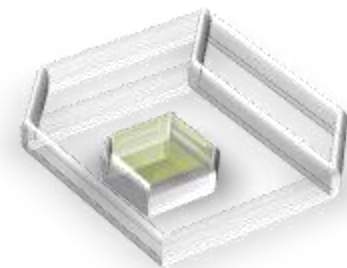Salary by employee over the last 12 months

Job Category

Salary

Employee

Time

Payroll Manager
Comparison of current year to previous year salary by job category and employee group

Executives
Top ten job categories with the highest average salary

Where and How SAP BI Gets Data?

- The primary source of data for SAP BI is the SAP ECC system.

- The update of data from SAP ECC to SAP BI is not real-time. However, the time interval for update can be set based on the reporting requirement.

- Users cannot directly update data in SAP BI; all updates to SAP BI data must originate in the source system (SAP or non-SAP).

BI Overview, Continued

BI Capabilities

Analysis

- Multi dimensional views

- Navigation and interaction (slice and dice, drill down, drill through, pivoting…)

- Hierarchy navigation

User Access and Interaction

- Web based - access, analyze and share information within a web browser

- Windows Based – Analysis in MS Excel

Intelligent Services

- Alerting – Identify and handle exceptions, pro-active notification (portal, e-mail…)

- Conditions – Top 5, bottom 10%, greater than, less than, ……

BI Overview, Continued

From a User's Perspective

@ For the majority of SAP BI reports and for simple analysis, data is presented through a Web Browser.

@ For complex analysis, other SAP BI reports are generated using a MS Excel based Analyzer Tool. Standard Excel functions can be used on the report in addition to the SAP BI analysis functionality.

@ Users can provide report parameters to determine a range of variations to the query at run-time.

BI Overview, Continued

Potential Benefits

- Reduce or even eliminate shadow reporting systems

- One version of the truth

- Analytical capability

- Alerting – Pro active notification

- Dashboard, cockpit capability

- Cross functional reporting – integrated reporting for Finance, HR / Payroll

- Capability to combine SAP and non-SAP data

- Move from typical information flow to self service analysis

- Easy Access to reports / analysis from every desktop

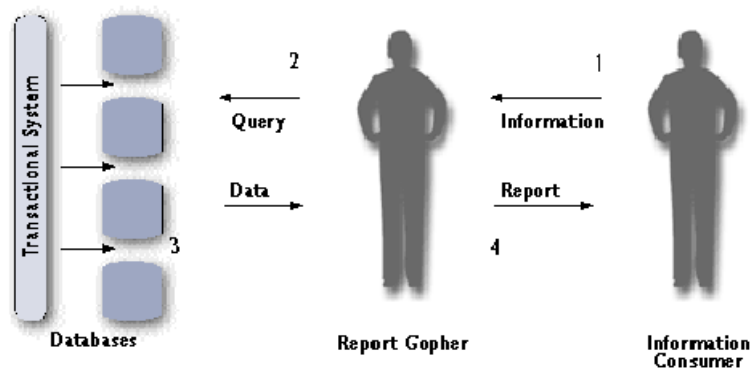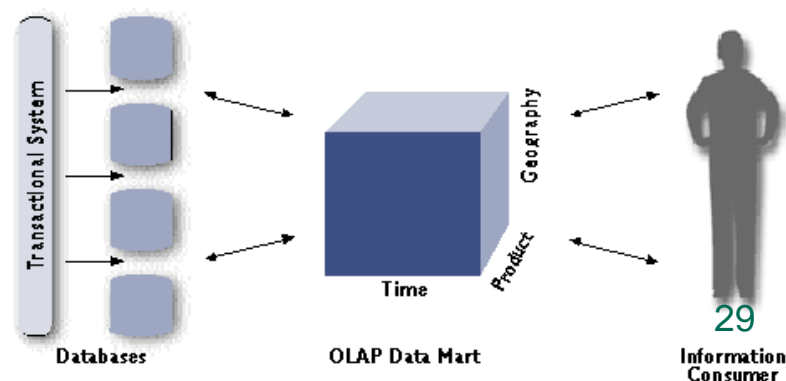**FIGURE 1: Typical Information Flow**

Transactional System

Databases

2 Query

Data

Report Gopher

1 Information

Report

Information Consumer

FIGURE 2: Self-Service Analysis

Transactional System

Databases

OLAP Data Mart

Geography

Time

Product

Information Consumer

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Identifying Reporting Needs

BI Requirements Gathering

4 Main Processes

1. **Legacy System Review**

   - Reporting Systems Only
   - Functionality
   - Data Sources

2. **Functional Team Business Process Workshops**

   - Identify reports to support business process
   - Provide their current critical reports
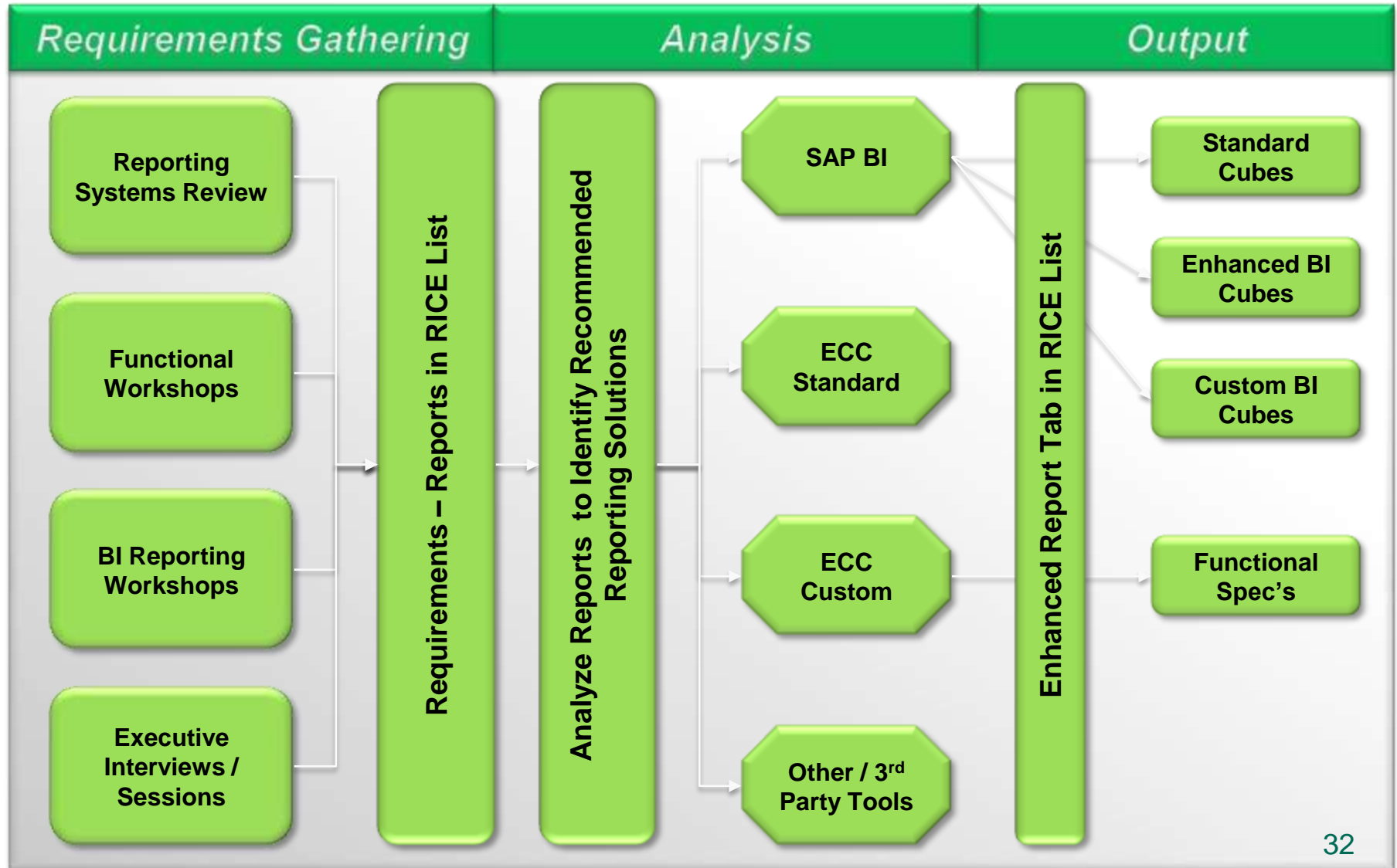   - Follow up to determine report details

3. **Reporting Specific Business Process Workshops**

   - Concentrate on Management reporting / analysis
   - Identify Key Performance Indicators (KPI's) to manage the individual business processes
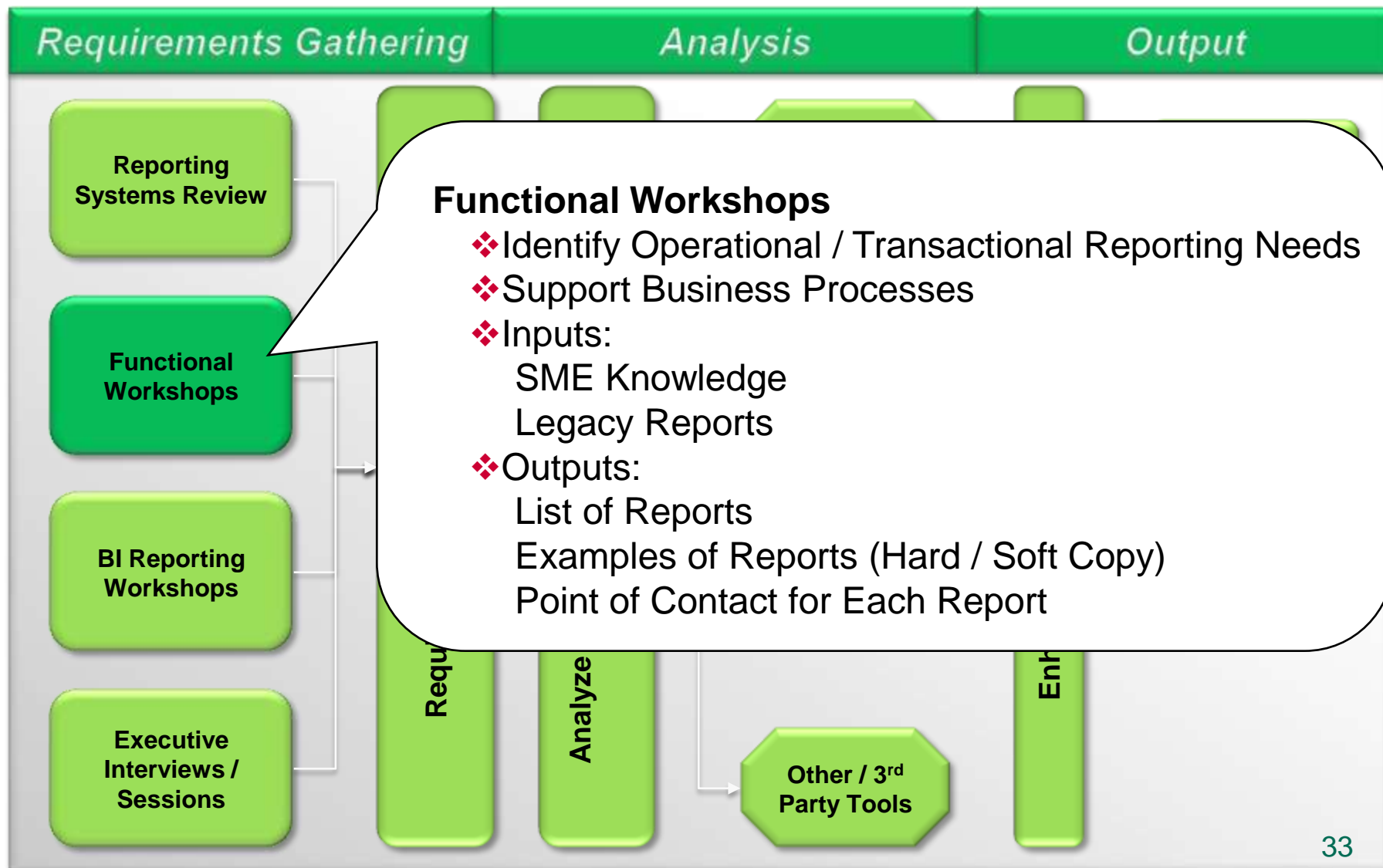
4. **Executive Interviews**

   - Concentrate on dashboard / scorecard
   - Identify Key Performance Indicators (KPIs) to manage the enterprise

BI Requirements Gathering
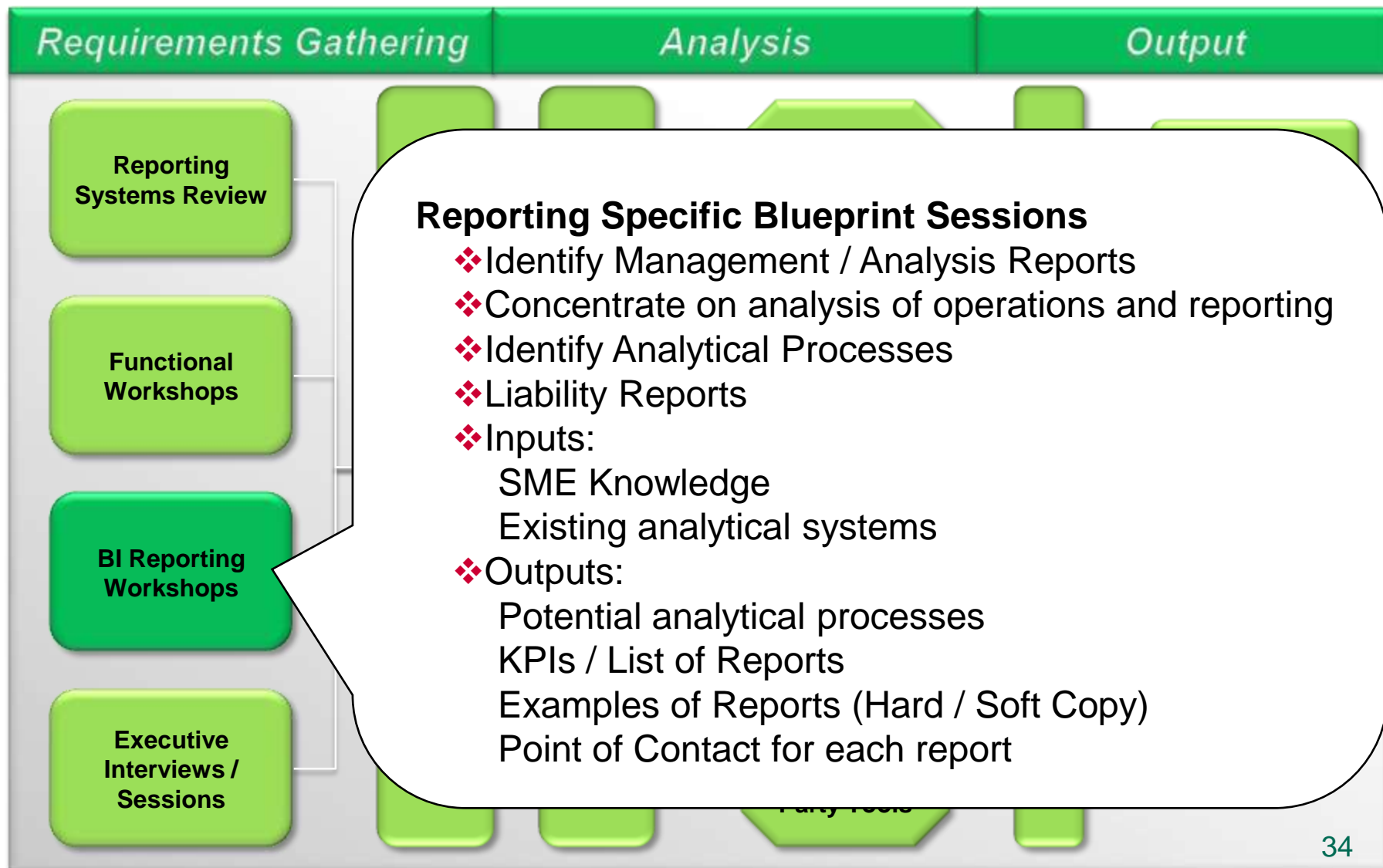

Requirements Gathering	Analysis	Output

Requirements Gathering
- Reporting Systems Review
- Functional Workshops
- BI Reporting Workshops
- Executive Interviews / Sessions

Requirements – Reports in RICE List

Analysis

Analyze Reports to Identify Recommended Reporting Solutions
- SAP BI
- ECC Standard
- ECC Custom
- Other / 3rd Party Tools

Enhanced Report Tab in RICE List

Output
- Standard Cubes
- Enhanced BI Cubes
- Custom BI Cubes
- Functional Spec's

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BI Requirements Gathering

Requirements Gathering | **Analysis** | **Output**

- Reporting Systems Review
- Functional Workshops
- BI Reporting Workshops
- Executive Interviews / Sessions

Functional Workshops
- ❖ Identify Operational / Transactional Reporting Needs
- ❖ Support Business Processes
- ❖ Inputs:
  - SME Knowledge
  - Legacy Reports
- ❖ Outputs:
  - List of Reports
  - Examples of Reports (Hard / Soft Copy)
  - Point of Contact for Each Report

Other / 3rd Party Tools

BI Requirements Gathering

Requirements Gathering	Analysis	Output

Reporting Systems Review

Functional Workshops

BI Reporting Workshops

Executive Interviews / Sessions

Reporting Specific Blueprint Sessions
- ❖ Identify Management / Analysis Reports
- ❖ Concentrate on analysis of operations and reporting
- ❖ Identify Analytical Processes
- ❖ Liability Reports
- ❖ Inputs:
  - SME Knowledge
  - Existing analytical systems
- ❖ Outputs:
  - Potential analytical processes
  - KPIs / List of Reports
  - Examples of Reports (Hard / Soft Copy)
  - Point of Contact for each report

BI Requirements Analysis

Requirements Analysis will require support effort from the functional team and SMEs

- Identify Data Elements required to meet requirements.

- Breakdown into basic data elements.

Examples:

'Total Leave Liability Report' can be calculated from 'Total Employee Leave' and 'Total No. of Employees.'

'Total Overtime Reported by Agency'

- Consolidate and align data elements – provide enterprise wide definition.

Time Management Reporting

Reporting Time Evaluation

Work Schedule

Time Management Report Tree

Absences

Time Leveling

Time Balances

Time Statement

Cumulated Time Balances

Attendances
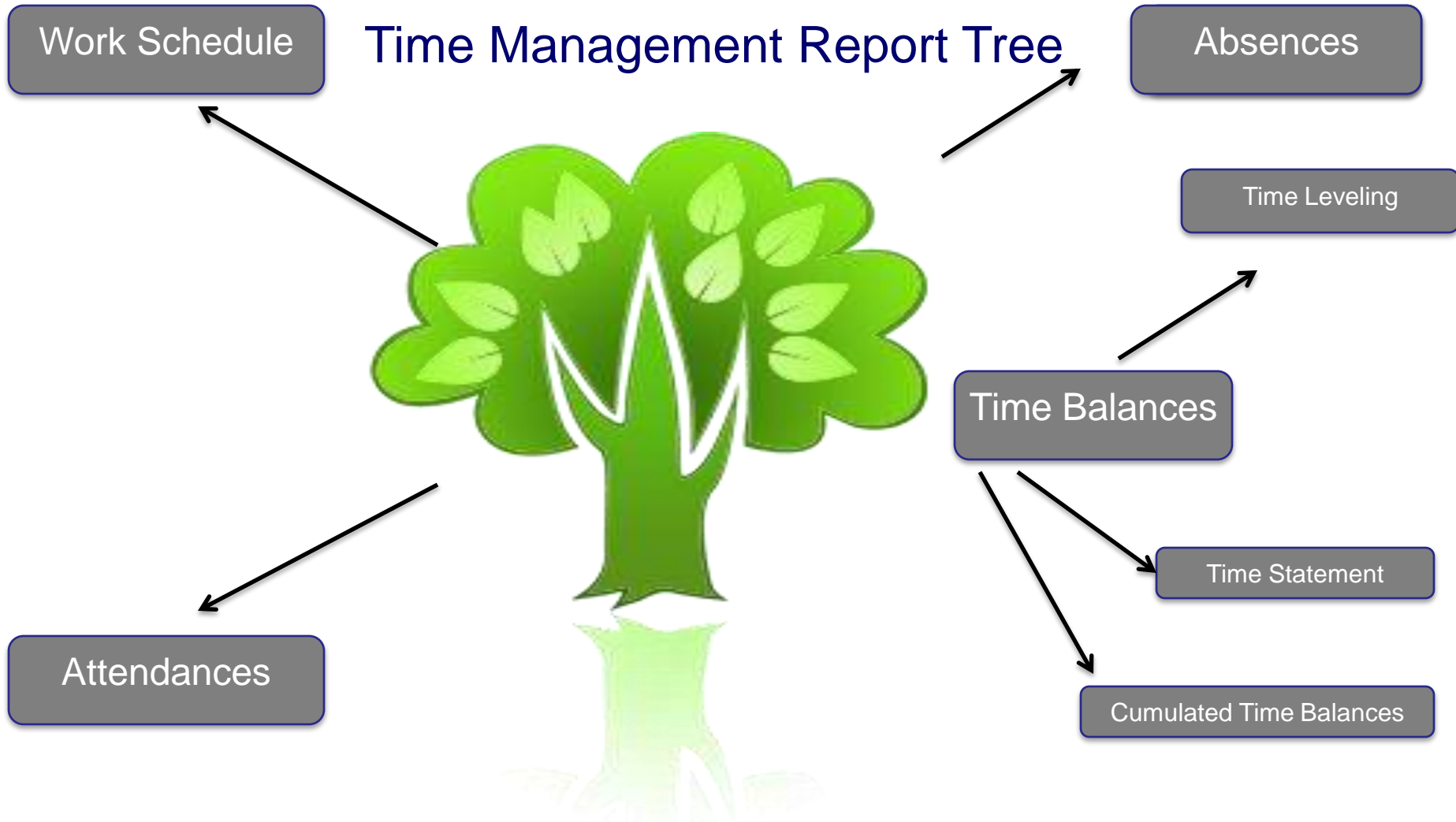
Time Management Reporting

The Time Management report tree gives you easy access to the most important reports in Time Management.

Business Example:

Management wants to find out the amount of overtime worked in your enterprise.

Management wants to analyze productivity statistics over the entire agency, division, or department.

Time Management Reporting

Time Statement

- Monthly overview of recorded time data, bonuses, and time accounts.

Clock In/Out

- Real-time posting of clock-in and out times, off-site work, and breaks.

Attendance Check

- Real-time overview of the attendance of groups of employees.

Entitlements Nearing Expiration

- Overview of the absence entitlements due to expire for the assigned employees.

Productivity Rate

- Quarterly comparison of the times worked with the planned working times.

Overtime Rate

- Quarterly comparison of overtime worked with the planned working times.

Time Management Reporting

Leave Balance report

All the Leave Accrual and transaction data is uploaded from the source ECC system to BI Infocubes

➢This Data Source uploads attributes from the infotypes 2006, 2001 and 0416

➢A separate infocube for quotas is delivered standard in BI

Attendance/Absence report

➢The ECC data source for this report will be infotype 2001 and 2002

➢A separate infocube tracks an employee's attendance and absence data

Time Wage type report

- All different types of Employee hours can be captured in Infocubes in BI and used for further analysis. Example: No. of shift differential hours or Overtime hours within a period, for certain agencies or certain group of agencies or for the whole state

Queries for Headcount / Personnel Structure

Average Length of Service

- This query indicates the length of service of employees in years in relation to the number of employees for the month most recently posted in the current calendar year. Personnel and organizational data are used for evaluations. Also, length of service can be calculated in hours for non-exempt employees.

Headcount/Headcount FTE Based on Work Schedule/Employment Percentage

- This query indicates the headcount and headcount FTE based on employment percent most recently posted in the current calendar year. Personnel and work schedule is used for evaluations.

Other Reporting Requirements

Employee Work Schedule Report

Time Statement

Audit Report for Work Schedule Changes

Time Reports

- Employee Time Report- Specifies an employees work week, daily and weekly work hours and weekly schedule.

- Time Statement- Reports employees regular hours, overtime hours, shift differential, absences, leave balances, leave pool usage, etc.

Infotype Audit Log

- Will output all changes to desired infotypes for desired period of time

- Will display old value, new value, date of change, and the user that entered the change

- Report can be run based on personnel number, infotype, "changed on" date, and "changed by" person

- Not very flexible for different outputting requirements

  – Cannot sort or filter by wage type

Logged Changes in Infotype Data – Selection Screen

Logged Changes in Infotype Data

Read from archive

Read documents from database
- ☑ Long-term documents
- ☑ Short-term documents

Selection

Transaction class
- ⦿ Master data
- ○ Appl.data
- ○ All

Personnel number		to	
Infotype	0008	to	
Changed on	08/01/2005	to	08/31/2005
Changed by		to	

Output options
- ☐ Direct output of docs
- ☐ Output program selections
- ☐ New page per doc.
- ☐ Output in ALV

Sort order
- ⦿ Time
- ○ Personnel no.
- ○ Infotype
- ○ User

Default currency

Logged Changes in Infotype Data

| | Errors |

Logged Changes in Infotype Data

Long-term documents

PersNo	Infotype	Date	Time	SqNo	Changed by
00000002 A	0008	08/02/2005	15:56:27	0001	TMARKUSS
00000018 A	0008	08/02/2005	16:14:02	0001	JWHITE
00000019 A	0008	08/02/2005	16:14:11	0001	GFARMER

- Double click on employee to see detail

Logged Changes in Infotype Data – Output (Detail)

Unapproved CATS Time

- Only time that has been approved by the employees' supervisor will be transferred to Payroll to be paid

- Payroll can run the "Approve Working Times" transaction to view all unapproved time, and approve if necessary

- Payroll can also view time rejected if necessary

Unapproved CATS Time – Output

Next Steps

Questions

SCEIS Information

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By email: sammie.chumley@sceis.sc.gov